```
#include <stdio.h>
#include <stdlib.h>
#include <pthread.h>
#include <unistd.h>  // for sleep()

// Function to be executed by first thread
void* thread_function1(void* arg) {
    for (int i = 0; i < 5; i++) {
        printf("Thread 1 is running (iteration %d)\n", i);
        sleep(1);  // simulate some work
    }
    pthread_exit(NULL);
}

// Function to be executed by second thread
void* thread_function2(void* arg) {
    for (int i = 0; i < 5; i++) {
        printf("Thread 2 is running (iteration %d)\n", i);
        sleep(1);  // simulate some work
    }
    pthread_exit(NULL);
}

int main() {
    pthread_t thread1, thread2;

    // Create two threads
    if (pthread_create(&thread1, NULL, thread_function1, NULL)) {
```

```
        fprintf(stderr, "Error creating thread 1\n");
        return 1;
    }

    if (pthread_create(&thread2, NULL, thread_function2, NULL)) {
        fprintf(stderr, "Error creating thread 2\n");
        return 1;
    }

    // Wait for both threads to complete
    pthread_join(thread1, NULL);
    pthread_join(thread2, NULL);

    printf("Both threads have completed.\n");
    return 0;
}
```

```
Thread 1 is running (iteration 0)
Thread 2 is running (iteration 0)
Thread 1 is running (iteration 1)
Thread 2 is running (iteration 1)
Thread 1 is running (iteration 2)
Thread 2 is running (iteration 2)
Thread 1 is running (iteration 3)
Thread 2 is running (iteration 3)
Thread 1 is running (iteration 4)
Thread 2 is running (iteration 4)
Both threads have completed.


...Program finished with exit code 0
Press ENTER to exit console.
```